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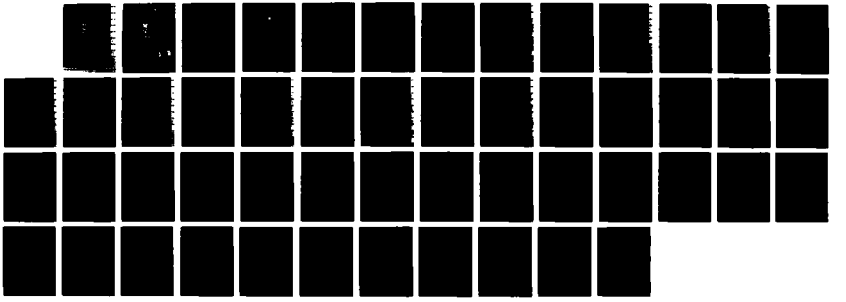

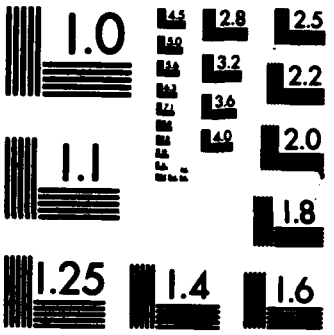

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STUDENT REPORT

AIRCRAFT MAINTENANCE QUALITY ASSURANCE INSPECTOR AFSC

MAJOR ROBERT L. WHITE 87-2725

"insights into tomorrow"

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Air Force and MAJCOM regulations provide guidance to Deputy Commanders for Maintenance (DCMs) for recruiting, training, and utilizing Quality Assurance inspectors. This paper shows what that guidance is and how DCMs actually accomplish these resposibilities. These aspects of the Air Force Quality Assurance program are then compared and contrasted to the Quality Assurance programs used by civilian aircraft corporations. It concludes civilian Quality Assurance inspectors by virtue of remaining in Quality Assurance jobs indefinitely, acquire experience far beyond that of their Air Force counterparts. This study recommends the Air Force develop an enlisted aircraft maintenance Quality Assurance Air Force specialty.

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EXECUTIVE SUMMARY

This study shows the guidance provided to Air Force DCMs for recruiting, training, and utilizing QA inspectors. It provides a view from Air Force DCMs showing how they actually accomplish these responsibilities through their responses to a written survey. The survey indicates DCMs do not always agree on the qualifications a potential QA inspector should have before being selected to fill a QA position. It shows there is no required Air Force or MAJCOM standard training program for newly assigned QA inspectors and once assigned to a QA job, many inspectors are used to perform additional duties.

These aspects of the Air Force Quality Assurance program are then compared and contrasted to the Quality Assurance programs used by Delta Air Lines, Hayes International Corporation, and Federal Express Corporation. It shows civilian industry enjoys an advantage over Air Force Quality Assurance programs because their QA inspectors, once assigned, remain in QA indefinitely, allowing them to build an experience level which is far beyond that of their Air Force counterparts.

This study recommends the Air Force develop an enlisted aircraft maintenance Air Force specialty. This is necessary so we can retain QA inspectors in QA jobs to allow them to build the experience necessary to become professionals in the Quality Assurance business.

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CHAPTER 1

INTRODUCTION

Purpose

Air Force Deputy Commanders for Maintenance have the responsibility to develop the capability to evaluate the condition of assigned equipment, the effectiveness of maintenance training programs, and the quality of work performed within their units. (14:21) To accomplish these tasks, they have assigned to their immediate staff a Quality Assurance function whose primary role is to ensure these tasks are accomplished.

This research paper will examine how the Quality Assurance (QA) function is manned, the qualifications required of a Quality Assurance inspector, the training given newly assigned Quality Assurance inspectors, and how these new inspectors are utilized. These aspects of the Air Force Quality Assurance function will be compared to related civilian industry Quality Assurance functions to determine if there is a better way to recruit, train, and utilize QA inspectors. The terms Quality Assurance and Quality Control are used interchangeably throughout this report.

Problem

Aircraft maintenance Quality Assurance functions are not manned by "professional" QA inspectors thoroughly trained in QA philosophy and inspection procedures.

Objectives

The objectives of this project are to:

a. Compare and contrast how three related civilian airline/aircraft companies recruit, train, and utilize Quality Assurance inspectors.

b. Explore the possibility of adapting all or part of these Quality Assurance recruiting, training, and utilization methods to the Air Force aircraft maintenance quality program.

Background

In recent years, both the Air Force Human Resources Laboratory and Air Force Inspector General staffs, in surveys of maintenance personnel and inspection reports, have noted deficiencies in the way Air Force wing-level Quality Assurance program managers recruit, train, and utilize Quality Assurance inspectors. In a 1984 Air Force Human Resources Laboratory report entitled "Analysis to Improve the Maintenance Environment," personnel interviewed stated Quality Assurance wasn't being staffed with the best available people and many of those being assigned to Quality Assurance staffs were unable to perform their regular jobs, at shop level, to management's satisfaction.

In a 1983 Functional Management Inspection of wing-level Quality Assurance programs, the USAF IG noted the Quality Assurance function was being used as a "dumping ground" and the current practice of manning the QA staff out of available on-base shop resources further attributed to the problem since maintenance managers historically are production-oriented and are usually unwilling to give up their best people for Quality Assurance assignments. Consequently, the QA staff at wing-level is rarely manned by the most qualified technicians.

Research

Quality Assurance has been the topic for many ACSC and Air War College research projects. Among these is Major Joseph J. Schaffer's 1972 report which investigated Air Force policy for insuring acceptable performance by maintenance technicians accomplishing maintenance tasks. In his report he stated:

> If the maintenance technician fails to perform his maintenance task to the required standards, the results can range from the inconvenience and cost of having to report the task, to the disaster of destroyed aircraft or missiles. To minimize the possibility of such events, Quality Control inspections of equipment have long been used to identify defects in equipment. Such inspections primarily involve the use of highly skilled maintenance technicians, well versed in performing inspections.

This statement assumes the Quality Assurance function is staffed by "professional" QA inspectors thoroughly trained in QA philosophy and inspection procedures.

Maj Edward C. Albritton, also a student in the 1972 ACSC class, completed a study in an attempt to determine if the average Air Force maintenance technician assigned to the Quality Assurance function received sufficient training and experience to prepare him to accomplish his job. He concluded the Air Force should establish a uniform, objective, minimum baseline of qualification criteria to control the selection of Quality Control personnel. He further determined the system in use at that time forced maintenance managers to use subjective judgment, based on subjective criteria, to fulfill objective responsibilities, and presupposed a level of competence that likely, did not exist.

In a 1976 ACSC research project by Maj John W. Krosnes entitled "Quality Control in AFLC: Some Problems and Proposed Solutions," he indicates AFLC responses to quality problems in the field can, when certain conditions exist, be slow to nonexistent, and concludes the Command needs to implement a mission-oriented Quality Assurance philosophy.

Maj William B. Mitchell in his 1976 ACSC project entitled "Quality Control: A Unit Level Analysis of the Maintenance Standardization and Evaluation Program (MSEP)," researched the statistical validity of the MSEP in a typical USAFE tactical fighter wing. He concluded MSEP policies were too restrictive of local managers because they could not tailor the program to local needs. Maj Mitchell recommended several changes in the MSEP which he determined would provide a more efficient program.

Another study which questioned the validity of the MSEP was accomplished in 1977 by Maj Thomas M. Daschbach. He considered the MSEP concept invalid and the efforts of Maintenance Standardization and Evaluation Teams (MSET) not cost effective and duplicative of other inspection teams. He stated MSEP results provide maintenance managers with limited data to measure effectiveness of the maintenance complex and concluded there is a need for a valid Quality Assurance program. MSEP, however is not filling that requirement.

In his 1978 Air War College research paper, Lt Col Gregory Patrick Barry concluded formal Maintenance Standardization and Evaluation Teams (MSET) should be abrogated and maintenance staff assistance groups should not prepare reports that use adjective ratings to evaluate unit maintenance functions. He stated the reasons for his conclusions are "MAJCOMs with MSETs that evaluate unit personnel and inspect unit equipment are not any more effective in ensuring maintenance quality and effectiveness than MAJCOMs without such MSETs."

MSEP was the subject of an ACSC research paper submitted by Maj Joseph B. Gaskin in 1982. His effort, "A Unit Level Analysis of the Tactical Air Forces Aircraft Maintenance Quality Assurance," was highly critical of MSEP because the program did not accurately assess the actual quality level of the maintenance performed by unit personnel. He points out problems in the MSEP which affect the validity of the data the program produces and recommends changes to make the program a better measure of quality.

In his 1984 research effort, "The Role of Quality Assurance in USAF Aircraft Maintenance Units," Lt Col Eric L. Redifer, accomplished a survey of Deputy Commanders for Maintenance (DCM). In his survey he asked 16 questions and received responses from 50 percent of the 75 DCMs surveyed.

The results of a portion of his survey will be used in this research effort to illustrate the feelings expressed by Air Force DCMs regarding the quality of individual that should be assigned to a QA staff, what training their QA inspectors receive after being selected for a QA job, and how they utilize their QA staff. Each of the questions asked and the responses from the DCMs are recorded in Lt Col Redifer's research project.

Lt Col David M. Crippen, in his 1986 Air War College research project "Aircraft Maintenance Quality Program: Time for a Change," analyzed the current aircraft maintenance Quality Assurance program and reviewed the previous studies accomplished on the Maintenance Standardization and Evaluation Program since the program was implemented in 1965. He analyzed related civilian industry practices and compared them to MSEP. He concluded unit quality programs do not effectively determine the quality of unit maintenance. Lt Col Crippen stated "MSEP was invalid" and recommended a new Quality Assurance program that would eliminate personnel evaluations. He further recommended QA personnel perform random inspections of equipment and that analysis personnel use this data to develop trends and predict problem areas for future investigation and that QA inspections be utilized to certify maintenance technicians.

The USAF IG, in a Functional Management Inspection (FMI) of aircraft maintenance wing-level quality programs conducted from 7 September 1982 to 27 July 1983, evaluated the ability of operational unit Quality Assurance

programs within aircraft maintenance to meet Air Force/DOD QA program objectives. The IG reported eleven specific findings and concluded that these revolved around two key areas. First, a lack of a common vertical thread existed throughout the program in the form of policy guidance and direction. Second, a well-intentioned thrust towards decentralization by the Air Staff and most MAJCOMs, coupled with the lack of policy guidance and direction, hindered quality program progress. The result was a stagnant aircraft maintenance quality program.

The final report reviewed was the Air Force Human Resources Laboratory Report entitled "Analysis to Improve the Maintenance Environment: A View From Active-Duty Aircraft Maintenance Personnel." This study defined the issues important to maintenance technicians, their supervisors, and their managers. The results were based on 1,469 interviews conducted at 15 bases within six MAJCOMs and consisted of one-hour interviews with individuals from all levels of field maintenance working on a wide range of aircraft. Interviewees were asked to indicate what made Air Force maintenance different and what could be done to improve it. Quality Control was one of the major topics in the report. In this area, 85 personnel expressed their views on a wide range of questions concerning their perspective of the Quality Assurance program at their units. Individual comments ranged from the belief that QC is "out to burn you instead of help" to "QC is manned by people who can't make it in the shops."

How civilian industry recruits, train, and utilizes QA inspectors will be treated as a separate chapter titled, "Quality Assurance in Industry." The data used in this chapter were obtained through telephone interviews with directors of the Quality Assurance function in each of the corporations studied.

CHAPTER 2

THE AIR FORCE QUALITY ASSURANCE FUNCTION

The Department of Defense in DOD Instruction 4155.1, directs the services to establish a quality program. The Department of the Air Force implements the DOD directive with AF Regulation 74-1, "Quality Assurance Program." The maintenance policy division, Directorate of Maintenance and Supply (AF/LEYM), is the Air Force focal point for QA matters concerning logistics. Major commands are tasked to implement the policy outlined in Air Force Regulations 74-1 and 66-1, and provide management direction for QA functions within their commands. Specific directives as to selection criteria of the individual QA inspector, the training program for newly assigned QA inspectors and QA program responsibilities which show how the individual inspector is utilized, are contained in the appropriate MAJCOM regulation. The next part of this chapter will discuss each of these issues.

Selection of Personnel

The selection criteria for individuals to become QA inspectors are similar among MAC, SAC, and ATC. As typically stated in MAC Regulation 66-1, Vol II, Quality Assurance, Selection of Personnel:

> The DCM must ensure all QA positions are filled with the best qualified people. Those individuals selected must be technically qualified, temperamentally suited, and possess communicative skills needed for duty as inspectors. The manpower authorization documents should be carefully analyzed to ensure a balance of specialties to provide surveillance of critical maintenance functions. The QA supervisor should have a broad background in maintenance, including both staff and squadron experience. Additionally, he/she must be familiar with the assigned weapon system, supporting equipment and the maintenance management requirements of this regulation.

The Tactical Air Forces (TAF), Multicommand Regulation (MCR), 66-5 differs significantly and does not say the DCM must ensure all QA positions are filled with the best qualified people but instead indicates the DCM should make sure individuals selected for Quality Assurance positions are technically qualified and possess the communicative and interpersonal skills necessary for duties in QA.

Personnel Training

Training requirements for QA inspectors are directed in MAJCOM regulations and are almost identical for MAC, SAC, ATC, and the TAF. As directed in the TAF, MCR 66-5 under Quality Assurance, Personnel Training:

QA personnel have responsibilities beyond formal evaluation and inspection and must have a positive and constructive attitude directed toward production and management improvements. Proper training and use of inspectors permits detection of maintenance malpractices and safety deficiencies in their early stages. Newly assigned QA personnel get an initial evaluation to determine their qualifications and training requirements.

a. The QA supervisor ensures that an initial evaluation is done to determine the person's ability to perform inspections and evaluations, knowledge of management procedures, effective writing skills, and ability to properly analyze inspection findings. Before doing evaluations or inspections unsupervised, each newly assigned inspector is qualified, and observed while doing at least one evaluation and one inspection. Where certification is mandatory, the QA inspector must be initially certified and maintain certification in that activity (for example, hot refueling, engine run, etc.).

b. Individuals assigned to QA must be thoroughly familiar with their specific area of responsibility and other selected areas within quality assurance. To ensure that the individual is provided this knowledge, a training program is developed by QA with the help of training management. Stress nontechnical areas, such as management procedures, since these areas are essential to the broadest development possible of QA personnel. This training program should ensure that personnel are trained on overall QA responsibilities, and maintain their proficiency in their specialized area.

c. Cross utilize individuals within QA to minimize the use of augmentees. As a minimum, familiarization consists of practical training. However, there are AFSCs in which individuals are task certified before being permitted to perform evaluations of these tasks. For example, the 431X1 inspector must complete the training required by AFR 66-51 before inspecting or performing an evaluation on egress components.

d. ATC technical training resources should be used.

e. The QA training program will be formalized by the development of an expanded Job Qualification Standard (JQS), for each assigned technician.

QA Responsibilities

Following initial training, which consists primarily of on-the-job training, a Quality Assurance inspector is subject to being used to perform a wide range of tasks in addition to accomplishing his quota of equipment inspections and personnel evaluations. Although no one inspector is responsible for all these tasks, he can expect to be qualified in one or more additional duty. QA responsibilities vary somewhat by MAJCOM but, for the

purpose of this research effort the list of responsibilities in MAC Regulation 66-1, Vol II, Quality Assurance, typically shows the main tasks most Quality Assurance inspectors will be utilized in. The following is a list of those tasks:

QA must ensure all technical and management procedures are followed. To fulfill these responsibilities QA:

a. Performs inspections of maintenance actions, procedures, equipment, and facilities.

b. Performs personnel evaluations.

c. Evaluates the quality of maintenance at unit level.

d. Performs deficiency analysis.

e. Manages the materiel deficiency and technical order improvement reporting programs.

f. Monitors the currency and applicability of technical data.

g. Provides assistance, advice, and authoritative references to the DCM, supervisors and maintenance technicians.

h. Manages the weight and balance program.

i. Maintains a central technical order file.

j. Administers the functional check flight program.

k. Ensures that appropriate actions are coordinated through the DCM to notify higher headquarters when deficiencies are detected in Air Force or major command directives.

l. Augment the workforce, as directed by the DCM, during contingencies and exercises.

m. Conducts informal on-site maintenance training during daily inspections/evaluations. To accomplish this requirement, the inspector must point out errors, reference it to technical data, discuss it with the responsible individual and instruct him/her on how to accomplish the job properly.

n. Assist training management with the validation and practical evaluation of audiovisual maintenance training modules.

o. Serves as the base focal point for hazardous maintenance operations.

p. Reviews TCTOs to determine their applicability to unit-maintained equipment or bench mockups.

Deputy Commander for Maintenance Survey

The preceding part of this chapter shows the guidance provided to the field for units to use in selecting, training, and utilizing QA inspectors. The remainder of this chapter, utilizing the results of a survey conducted by Lt Col Redifer in his 1984 Air War College research effort, will show how the elements of selection, training and utilization are actually viewed by Air Force DCMs. Lt Col Redifer's entire survey consisted of sixteen questions sent to 75 DCMs Air Force wide. Of the 75 DCMs surveyed approximately 50% responded. Five of Lt Col Redifers 16 original questions provide data pertinent to this research effort. These data will be utilized and the DCM responses to these five questions included as an appendix to this report, in their entirety. For convenience only, the questions taken from Lt Col Redifer's survey will be renumbered.

Recruiting

To establish the quality of individuals assigned to QA functions, Lt Col Redifer asked the DCMs: "Should the best talent available be assigned to QA?" The following are some of their responses:

a. Not necessarily. The best talent available should be fixing the aircraft. What is needed in the QA is high caliber individuals who have the capability to deal with people, the situation, and can put facts in words. The individual should be selected for QA, from available resources, without hampering quality production.

b. Obviously superior talent should be assigned to QC. As for "the best", that would be determined on a case by case basis commensurate with other specific needs or supervisory requirements within the complex.

c. QA should be manned with excellent people. QA is an organization, and like other organizations, it should be manned with a mixture of talent and experience. This is not to say that it would be proper to put duds in QA, but QA is a good place to train some of our young supervisors. It gives them a chance to see the "Big Picture" as well as pick up those things that distinguish good supervisors from poor ones. They leave QA with a clear understanding of their role as supervisors and how best to play it.

d. Yes, QA should have the best people. The reasoning for this is simple. QA inspector/evaluators can be as much or more help to a squadron commander or supervision than if they were assigned to the squadron. People resent being inspected by people less qualified than they are themselves. A viable QA program cannot exist without the best qualified people to execute it.

e. Ideally yes. In some cases particularly in specialist AFSCs, this is not always possible. Shortages in mid level managers/ supervisors in various shops requires individual selection on my part to ensure both inspection and production can meet mission.

f. Not necessarily. As I said earlier, it is easier to be critical than correct, and the QA inspector works in a much less frenzied environment. Good technical talent possessed by a mature individual who can exercise good judgment is necessary. It is often possible to use a junior person in QA when teamed with a more experienced NCO. The talent, by all means, must be adequate. It need not be the best you have.

g. No, because of the limited amount of talent involved. We must leave some highly talented people to take care of business. QC must, however, have very well-qualified people.

h. Yes! QA *is the quality force and must be the best.* You cannot have an effective Quality Assurance Program without highly experienced, dedicated personnel.

i. We operate under COMO. The very best need to be in the front lines, not on the bench. QA runs a close second. However, a good QA guy may not be the best supervisor.

j. Yes. Every superstar can't be, but some top people have to be there to provide leadership.

It appears that there is some foundation to the statement in Maj Albritton's research project where he observes a tendency on the part of Air Force maintenance management to assign and accept people for the Quality Control function with little or no thought given to their skill, experience, or aptitude for this unique and responsible position. (1:3) Some DCMs feel that they should place their best qualified people in QA but, there is a significant number who would not. The decision on who to put in QA, even in MAC, SAC and ATC, is in practice a DCM option in spite of the guidance that requires them to select their best qualified personnel.

Training

To determine the training a QA inspector actually receives, Lt Col Redifer asked the DCMs: "What training, if any, do your inspectors receive when they are assigned to QA?" The following are some of those responses:

a. QA training program consists of a local training program which tells individual of QA mission, has a reading requirement of inspector guidelines and procedures, and an open book test on policy and procedures. Expanded specific technical and cross utilization training is provided where necessary. All training is documented. Training outlines are available.

b. Local only, on the regulation and inspection techniques. The ATC course is not command specific and therefore useless to SAC.

c. Some inspectors who inspect outside of their area of expertise receive some technical training. The remainder of the training is OJT with their counterparts.

d. Three months on-the-job-training.

e. On-the-job-training.

f. My opinion-it's OJT.

g. Each inspector assigned to quality control is in training from 60 to 90 days before he is qualified to inspect/evaluate. He receives training in quality control functions, MSEP reports, personnel evaluations, equipment inspections, activity inspections, and is given training on each piece of equipment or task that he will be required to inspect or evaluate.

h. When new personnel are assigned to QA, they are assigned to an experienced inspector for approximately 30 days. During the period they are given specific reading assignments that include the QA chapter of ATCR 66-1, all maintenance operating instructions, AFOSH Standards and QA Activity Inspection Reports. They will accompany the inspector on technical inspections, as well as personnel evaluations. After a period of OJT, "initial evaluation" will be performed.

i. Training is given first by the individual he/she is replacing, primarily on the areas of responsibility he/she is about to undertake. The next training is given by quality control coworkers on how to finalize reports. Two EE's (evaluator evaluation) are given to the new inspector to verify his/her proficiency. Training in the math required to grade a shop is given by his coworkers to comply with MSEP.

j. OJT by other inspectors.

k. On the job training.

l. We use an OJT program in the division. Takes 4 to 6 weeks to learn the administration, do(s) and don't(s), get some over-the-shoulder, then on their own.

An additional series of questions asked of the DCMs was regarding the Quality Control Course taught at Sheppard Technical Training Center, Sheppard Air Force Base, Texas. This course, number J3AZR00066-006 "Quality Assurance Aircraft," provides fundamental training for airmen in responsibilities of a Quality Assurance organization, standard publication system, technical orders, deficiency analysis, Quality Assurance inspections and evaluations, and evaluation of the maintenance program. (19:3-87) The course is open to all SSgts and above, minimum 5 - skill level (7-level desired) in any aircraft maintenance AFSC, and is eight days in length. Specifically, the DCMs were asked: "Have any of your inspectors attended the Quality Control Course at Sheppard AFB? Do you feel there is a need for the course? Are there any changes you would recommend for the course?" The following are some of those responses:

a. Not in recent history, thus, I assume there is no severe need for the course.

b. It's no good to SAC.

c. One of our inspectors attended the course in 1978 and feels the course was very worthwhile. I believe the course would provide more well rounded inspectors. However, I am not familiar enough with the current course structure to provide an evaluation.

d. Six inspectors attended. Yes, there should be a separate course for each command. It does an inspector no good to be taught the Quality Assurance Program, when he is operating under the Maintenance Standardization and Evaluation Program.

e. All of our inspectors have attended course J3AZR00066-000. There is a need for the course for newly assigned QA/QC inspectors with less than one year QA/QC experience. The course gives basic information about QC/QA in general and what is required by AFR 66-1. The only changes I would recommend for the course are already being implemented in a new course re-write. They are command applicable data, and a course designed for each major command.

f. No. I would like to send at least one person from each squadron, but with present funding, there is no way this is possible.

g. One third of our inspectors have attended the QA/QC course (9 of 27). Ideally, I would like all inspectors to attend as it aids in fine tuning their inspection techniques. I do not have any recommended changes to the course as of now.

h. Approximately 75% of our inspectors have attended the J3AZR00066-000 Quality Control Course. Instead of spending a great deal of our limited TDY funds by sending our men to Sheppard AFB, we arranged, through our training section, to have one of the Sheppard ATC instructors come here to McChord for the class. Thus, we saved many TDY dollars and still received the valuable training. Our inspectors felt there definitely was a need for the course and were satisfied with the course curriculum.

i. Yes. Unfortunately we had only one person attend this course while stationed in CONUS. In his opinion, this course teaches the basic Q.C. requirement and would be useful to personnel newly assigned to Q.C.

j. I do not know? I doubt if they have.

k. No inspectors have attended the Quality Control Course taught at Sheppard AFB. The SAC Maintenance Standardization and Evaluation Program is directed by SACR 66-1, Volume II, rather than AFR 66-1. There is a need for such a course, but it should be administered by the individual commands, and tailored to their requirements.

As indicated by the survey, many DCMs rely almost entirely on OJT, and some units had an in-house training program which was generally limited to non-technical areas of instruction. The Quality Control Course taught at Sheppard AFB, was not widely used and several responses showed DCMs were not aware of the course.

Utilization

Lt Col Redifer's survey asked two questions which are closely related and provide data showing what the DCMs expect of their QA inspectors and how they utilized their inspectors. The first of these questions is: "What do you desire or see the role of QA, and more specifically the QA inspector, to be in your organization?" The following are some of these responses:

a. The expert on all problems or at least have the knowledge on how to get the answer. Friend of the maintenance man. Someone to turn to for help, technical data errors, MDRs, etc. Secondary, black hat inspector.

b. The auditor, an impartial evaluator capable of determining the quality of a product and keeping the boss informed. They close the loop and keep production elements accountable.

c. Voice of integrity and "by the book" even present above the din and madness of meeting operational requirements. Technical expert; thorough investigation of problems; trainer, when appropriate.

d. QC is vital to a safe flying program. In SAC, QC is also a key player in maintenance training. The QC evaluator is the best in his field. I also rely on them to do 180 day activity inspections and as investigators to flying deviations. They are also the OPR for MDR's. In short, they are absolutely essential.

e. The role of QC in the maintenance activity is to be the primary technical advisory agency in the resolution of quality problems, and to evaluate the proficiency of maintenance personnel up to and including the quality of assigned equipment.

f. To be the eyes and ears of production unit maintenance supervisors, staff division chiefs, and the DCM to determine if our people are properly trained and supervised.

g. The inspector should be the most highly qualified technical expert in his particular area. Any level short of this jeopardizes his effectiveness and credibility.

h. I desire the QA inspector to be the technical expert on the weapon system/equipment who enforces our standards and provides on the spot corrections and training.

i. QA provides three functions:

1. An evaluative agency, responsible for informing and administrative health of the maintenance complex. This is accomplished through daily evaluations and scheduled activity inspections.

2. A standardization/training agency to verify good maintenance practices and to eliminate poor questionable practices. This is accomplished through observation and on-the-spot instruction as appropriate.

3. A repository of technical experience and expertise. The evaluators are available to assist in resolving complex technical problems, perform maintenance, or advise on preferred maintenance practices.

The second question related to QA inspector utilization is: "What other duties, if any, do you, or would you have inspectors do?" The following are DCM responses to that question:

a. We must have inspectors man our evaluation team for local ORI/NATO TAC EVAL preparatory exercises. These run three days per quarter, and require lots of time in planning, execution, and written reports.

b. Our inspectors work for the CVI on practice exercises. They also frequently accompany deployments, not solely as inspectors, but as my representatives to insure proper maintenance practices are followed. I do not indorse nonfunctionally-related duties for QA personnel.

c. Our inspectors act as evaluators during local exercises, act as trainer/certifiers for hot pits, and integrate into the work force in time of war.

d. In addition to the duties discussed in this questionnaire, QA inspectors investigate all aircraft incidents which include all air aborts, fuel spills, engine shutdowns in flight, and ground incidents and accidents.

e. Manage the dropped object program, the maintenance self-inspection program and exercise evaluation teams. Use QA to evaluate AMQT (aircraft maintenance qualification training) graduates and instructors. QA is used to instruct special maintenance/servicing oriented classes when a definite training deficiency is noted. Also use QA to conduct 3-6 operational readiness inspections on aircraft per month. This OR spot check determines actual serviceability of aircraft shown FMC by the AMU's.

f. Monitor suspenses and files and answers to all inspection and exercise reports. Manages the FOD program. Others include: Exercise Evaluation Team members, Drug Abuse Investigation for Mobility, Disaster Preparedness OIC/NCO, Environmental Protection Committee, AFOSH monitor, housing inspectors, Suggestion Program monitor, Policy letter monitor, Unit Security Manager, and war skills augmentee (WRM) tank and munitions buildup).

g. Their duties are unlimited. They are professionals in the aircraft maintenance business and should be and are used in all areas for authoritative reference. On the other hand, I firmly believe in holding extra duty details to an absolute minimum.

h. The inspector should have no other duties, especially additional duties. His job should be one of prestige and cut and dry, i.e., report on the quality of the production effort.

i. Inspectors are not exempted from any additional duties or details. They are used to augment the safety function during exercise/contingency operations, and when the workload dictates, they augment the workforce as needed. Additionally, they may be assigned to work special projects such as test programs of research efforts.

In summary, the DCMs generally agree they want a QA inspector to be an expert, the voice of integrity, an impartial evaluator and the eyes and ears of the maintenance complex. Where DCMs do not agree is on how to utilize the individual inspector. Some of the DCMs surveyed would only use QA inspectors in duties directly related to maintenance while many others would and do use QA inspectors to accomplish a wide range of additional duties.

CHAPTER 3

QUALITY ASSURANCE IN INDUSTRY

To determine the methods used in industry to recruit, train, and utilize QA inspectors, three civilian airline/aircraft corporations were contacted through their managing director of Quality Assurance. Each of these corporations willingly provided the necessary data and extended an invitation to visit their facilities should it be necessary to complete this research effort. The remainder of this chapter will discuss how each of these agencies recruits, trains and utilizes QA inspectors.

Delta Air Lines

At Delta Air Lines all inspectors are recruited from the ranks of experienced FAA licensed mechanics assigned to the maintenance department. A bid and ballot system is used where mechanics interested in becoming inspectors sign posted bids. A resume is prepared on each bidder and a package of resumes of all bidders is sent, along with a ballot, to a number of mechanics and inspectors in the areas where bidders are currently assigned and to the Quality Control area where the opening exists. The individual is then elected into a Quality Control position.

Election into a Quality Control position is in almost all cases followed by a promotion in the form of a salary increase. All supervisory and management personnel within Quality Control have risen from the position of inspector.

All Delta QA inspectors are experienced FAA mechanics, so their basic aviation training requirements have been met. After being elected into a QA inspector position, each person is given Quality Control oriented training which can last up to a week, followed by extensive on-the-job training for the special requirements in their assigned areas. For example, the hanger inspector normally receives forty to sixty hours of on-the-job training with experienced inspectors on each aircraft type before beginning unaccompanied duties. The length of time necessary to qualify an individual inspector varies with the individual and is mutually agreed upon by the inspector and his supervisor. Both Delta and vendor classroom training on each aircraft type is given to every new inspector in addition to problem oriented training that is accomplished by Delta personnel. This training precedes the on-the-job training phase for each aircraft type.

At Delta, QA inspectors are utilized in their respective areas on a permanent basis. There is occasional cross utilization between various inspection areas and occasional transfers from one inspection area to another. Inspectors are not routinely reassigned back to the maintenance department. All inspectors are evaluated annually with promotion potential being one of the items considered. Supervisory personnel receive in-house management training. This system provides supervisory personnel with strong technical experience, management training and people with long term company length-of-service and loyalty.

Delta QA division responsibilities include monitoring trends in system reliability. They function as the FAA chief inspector, responsible for complying with all FAA rules on inspection. They manage technical data for all maintenance activities. Unlike Air Force QA inspectors, Delta QA inspectors only inspect hardware; personnel evaluations are the responsibility of supervision. Another Delta QA division responsibility which is a significant departure from Air Force procedures is QA inspectors perform "letter checks." Letter checks are similar to Air Force major in-dock inspections. Delta QA inspectors are responsible for all steps in technical data which call for inspection. Under this system, once QA inspects an aircraft or system and identifies discrepancies they then turn their results over to maintenance to correct. After repair actions are accomplished QA reinspects and signs-off or clears the discrepancy.

Hayes International Corporation

Quality Assurance inspectors at Hayes International Corporation are recruited from both the in-house maintenance work force and directly off the street. Those individuals hired from within are selected on the basis of the most qualified. They are selected based on their work record, knowledge, experience, and upon the recommendation of their supervisors.

Quality Assurance inspectors hired off the street must have a significant amount of experience directly related to the contract for which they are hired or be highly experienced QA inspectors with related aircraft experience. For example, Hayes International Corporation has the contract to do depot level repair on C-135 aircraft. For an individual to be hired directly into QA off the street he must have significant experience and be a journeyman mechanic on the C-135 aircraft. With significant experience they will hire an individual directly into QA. Individuals who have previous QA experience with other companies on related type of aircraft can also be hired directly into a QA position providing they also possess a positive work record and a strong background. The majority of QA inspectors at Hayes International Corporation have previous military aircraft maintenance experience, and started their careers in one of the branches of the U.S. Armed Forces.

Once hired into a QA position at Hayes International Corporation, each new inspector goes through an initial company orientation program followed by a QA program orientation. QA program orientation is initial training on Hayes unique QA program procedures. Following orientation each new inspector receives formal training based on his experience with the type aircraft or contract for which they were hired. If a new inspector has no experience on the type aircraft for which he is hired to work, he receives a short 40 to 60 hour aircraft familiarization course followed by extensive on-the-job training with an experienced QA inspector. He remains in the OJT program until both his trainer and a QA supervisor feel he is ready to work alone. Prior to being turned loose to work alone, every new QA inspector is evaluated for proficiency and knowledge of military specification, MIL-I-4520A, "Inspection System Requirements" and MIL-Q-9858A, "Quality Program Requirements," which are the specifications by which all military awarded contracts must be evaluated. Prior to initial work assignment, each new QA program employee is instructed in contract requirements, the use of manufacturing orders, QA

inspection cards and technical data. They receive training on the use of inspection stamps and the proper control procedures for inspection stamps. Safety, foreign object damage prevention through tool and hardware control, and the use of assigned work areas and station arrangement charts are all subjects that each new QA inspector receives training on.

At the Hayes International Corporation, Quality Assurance inspectors are utilized exclusively in the contract area for which they were hired. As in the previous example, if hired for the C-135 contract an inspector remains in that program until it expires and may not be able to transfer to another contract area. If openings exist in other contract areas, there are provisions for inspectors to be rehired, in which case they would again undergo additional aircraft training.

Much the same as Delta, Hayes QA inspectors also only perform hardware inspections. Other program responsibilities include the utilization of Quality Control standards for inspection and acceptance of a wide range of processes, including cleaning, soldering, heat treating, welding, riveting, installing, non-destructive testing, handling, and finishing. They are responsible for standard process and process bulletin manuals, which establish the minimum technical requirements for the manufacture, modification, and processing of hardware. Maintaining technical data and maintenance analysis are additional areas that QA inspectors are utilized in. Once obtaining an inspector position at Hayes, most individuals remain in QA until retirement and some continue to advance into management positions. Generally speaking, the only situation where an individual ever returns to maintenance is in the case of an expired contract and in the re-hire process the only openings are in maintenance.

Federal Express Corporation

At Federal Express, QA inspectors are for the most part hired from the ranks of the experienced mechanic work force. There is, however, at least one inspector who was hired directly into the QA function based on his previous experience as a QA inspector with another airline. All QA inspectors at Federal Express are licensed FAA mechanics and receive an annual evaluation to verify their continued knowledge of Federal Aviation regulations. QA position openings are filled by putting the jobs to bid and qualified senior mechanics are free to bid the job. The job is generally offered then to the most qualified senior mechanic. An inspector's position is equivalent to a lead mechanic's position and commands a higher salary than that of a senior mechanic.

With all Federal Express QA inspectors being licensed FAA mechanics, their basic aviation training requirements are met, and with almost all inspectors being hired from the mechanic work force, their knowledge of the two aircraft systems Federal Express operates is also complete. Training to become a QA inspector is accomplished in several ways. New inspectors are provided initially with a QA indoctrination and assigned OJT instructors. They then receive extensive training on Federal Aviation regulation requirements. They also attend classes conducted by representatives of the American Society for Quality Control in specific areas and Federal Express developed Quality

Assurance course work. Following this training a new inspector is evaluated for his knowledge of FAA requirements and his ability to inspect and evaluate the airworthiness of an aircraft or subsystem. A new inspector is not turned loose to inspect on his own until the individual, his OJT trainer and his supervisor all agree he is qualified.

Much the same as Delta Air Lines and Hayes International Corporation, QA inspectors at Federal Express are utilized only to evaluate equipment condition. Evaluations of personnel are the responsibility of individuals' supervisors. Some of the peripheral responsibilities of the Federal Express Quality Assurance department include: technical analysis, maintenance manuals review, weight and balance management, and required inspection item designation. Each of these task are accomplished by personnel within the QA department hired specifically for that function. Mechanics at Federal Express are expected to work on what is referred to as a "heightened sensitivity," i.e., do the job right the first time, to fill out the paper work properly, and to make sure the right parts and technical data are used. The Quality Assurance function philosophy is that a second set-of-eyes be used to comply with FAA regulations for quality of aircraft systems.

CHAPTER 4

CONCLUSIONS

Air Force guidance for recruiting QA inspectors, at least in MAC, SAC, and ATC, is very specific and requires the DCM to ensure all QA positions are filled with the best qualified people. Within the TAF, MCR 66-5 does not specifically require the DCM to use the best qualified people but does state, "The DCM makes sure that the individuals selected for QA positions are technically qualified and possess the communicative and interpersonal skills necessary for duties in QA." Although the term best qualified is not used in the TAF directive, a person fitting the stated requirement will most generally be of very high quality. As evidenced by the DCM responses to Lt Col Redifer's survey, it is clear a large percentage of DCMs express disagreement with the regulation by not placing their best qualified in QA positions. Civilian industry, in the three companies examined in this research effort, places greater emphasis in recruiting highly qualified technicians to become QA inspectors. At two of the three companies contacted, QA inspectors are recruited from licensed FAA mechanics. In all three companies they are the best qualified and most experienced. In private industry a move into a QA position is also a move up in terms of company hierarchy and includes a raise in salary. QA inspectors in the Air Force do not receive additional pay. In an Air Force unit where the DCM accepts less than the best qualified for QA inspectors, QA will not be viewed as a prestigious place to work. This situation has the potential of causing our best qualified not to accept QA inspector positions and may make supervisors hesitant to release their best people for QA assignments. Based on DCM survey responses to the question: "Should the best talent available be assigned to QA?" It is an assumption that many of our current inspectors are inferior in technical qualifications, communicative, and interpersonal skills. Additionally they lack the broad background in maintenance, including both staff and squadron experience, to be effective inspectors.

In private industry, QA inspectors come from the ranks of the most qualified and experienced mechanics. These new inspectors bring with them many years of experience and education to their new positions. Many individuals who move up to a QA job in civilian companies have, in addition to many years of civilian experience and education, training and aircraft maintenance experience from previous duty in the armed forces. Once they accept a job in QA, in all three companies examined in this study, QA inspectors are provided with a great deal of training to prepare them to succeed. As in the Air Force, civilian companies use on-the-job training (OJT) as a means to train new inspectors. But, in addition to OJT, Delta Air Lines, Hayes International, and Federal Express provide new QA inspectors with classroom training designed to teach them the different steps within the quality process and help them develop individual techniques of inspecting. Many newly assigned Air Force QA inspectors receive OJT only. Even with the ATC course available, it is not possible for all new Air Force QA inspectors to attend. Classroom limitations and TDY costs prevent DCMs from sending all new inspectors to the course. Some Air Force units have in-house training programs but these stress non-technical areas such as management procedures.

Air Force QA inspectors perform many of the same functions civilian inspectors do. One major difference in the way inspectors are utilized is in the area of personnel evaluations. Civilian QA inspectors do not perform personnel evaluations. In industry that responsibility lies with the individual mechanic's supervisor. Air Force QA inspectors are responsible for personnel evaluations. Another major difference between the way the Air Force and the civilian community utilizes QA inspectors is that once hired as a QA inspector with a civilian company the vast majority remain in QA until retirement or until they move up into management positions. Air Force QA inspectors are utilized as QA inspectors for generally no longer than four years before returning to duty in their AFSC. This system is essential in Air Force QA program management to assure the individual remains qualified in his AFSC. Air Force QA inspectors are not promoted as QA inspectors but as technicians in their primary AFSC, so it is essential they do not remain in QA for an extended period. Civilian QA inspectors, by virtue of remaining in QA jobs indefinitely, acquire experience far beyond that of their Air Force counterparts.

CHAPTER 5

RECOMMENDATIONS

This study has addressed Air Force requirements for recruiting, training, and utilizing QA inspectors as required by Air Force and MAJCOM regulations. It has also shown many DCMs do not fully support existing guidance and there is significant disagreement amongst DCMs as to the quality of individual that should be assigned to QA, the training these individuals need to become QA inspectors and what task QA inspectors should be doing. The Quality Assurance program used in the Air Force was then compared and contrasted to the Quality Assurance program used by civilian industry. Based on the conclusions reached in the previous chapter, it is now appropriate to present recommendations to improve the present Air Force Quality Assurance program.

With advances in aircraft, munitions, and support equipment, both from a technological and a management viewpoint, it is imperative the people who administer the Air Force Quality Assurance program be properly selected, trained, and utilized to accomplish the QA function. The Air Force needs to retain QA inspectors in QA jobs and allow them to build the experience level necessary to become professionals in Quality Assurance. Looking at the advantages civilian industry enjoys by building a vastly experienced Quality Assurance staff thoroughly trained in QA philosophy and inspection procedures, it is recommended the Air Force develop an enlisted aircraft maintenance Quality Assurance Air Force specialty. An AFSC for Quality Assurance inspectors, if properly developed in terms of qualification criteria, training requirements, inspectors utilization, and promotion opportunity, could resolve the problem of Quality Assurance functions not being manned by "professional" inspectors thoroughly trained in QA philosophy and inspection procedures. Expecting the development of a QA AFSC could take years to accomplish, the following recommendations are submitted to solve the short-term problem.

Greater emphasis needs to be placed on recruiting highly qualified technicians to become QA inspectors. Individuals selected should be our best qualified and most experienced technicians. To accomplish this, Air Force and MAJCOM guidance to DCMs needs to be made clear regarding the qualifications required to be an inspector. Once qualification criteria is established, an improved selection process needs to be developed. One possible method of selecting personnel to fill QA positions would be to have potential inspectors meet a DCM level selection board, utilizing a hiring procedure much the same as the one used to hire Air Force civilians.

MAJCOMs need to provide new QA inspectors with classroom training designed to teach them the different steps within the quality process and help them develop individual techniques of inspecting. A MAJCOM level training program is necessary because of classroom limitations and TDY cost associated with sending new inspectors to the course at Sheppard AFB, Texas. MAJCOM courses can also best accommodate the differences between the Quality Assurance Program and the Maintenance Standardization Evaluation Program. Classroom training in addition to OJT is necessary to ensure new inspectors receive

sufficient training to be successful in accomplishing their duties and are capable of making a contribution to the mission in terms of improving equipment condition and training maintenance personnel.

Air Force and MAJCOM guidance needs to be developed to ensure inspectors are used to perform only their primary jobs. We cannot afford to have this valuable resource performing duties not related to either evaluating personnel, inspecting equipment or training maintenance personnel.

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APPENDIX

Question Number One

Should the best talent available be assigned to QC/QA? Why or why not?

Not necessarily. The best talent available should be fixing the aircraft. What is needed in the QA is high caliber individuals who have the capability to deal with people, the situation, and can put facts in words. The individual should be selected for QA, from available resources, without hampering quality production.

The best available talent should be assigned to QC. The DCM relies heavily on his "eyes and ears." QC has to provide him with constant feedback on the overall maintenance posture of his complex. People providing this feedback have to be knowledgeable in terms of experience and represent the finest the maintenance organizations have to offer.

Obviously superior talent should be assigned to QC. As for "the best", that would be determined on a case by case basis commensurate with other specific needs or supervisory requirements within the complex.

I feel that the best talent available should be assigned to the shop, office, area or function that has the greatest potential for discrepancies, problems, hazardous conditions or accidents. If this happens to be QA, then that's where the talent should be assigned. The price you pay by keeping the best in QA may be critical by denying their skills to an area where the demand is greater. If your QA function is not considered to be the panacea, then place your best talent elsewhere.

QA should be manned with excellent people. QA is an organization, and like other organizations, it should be manned with a mixture of talent and experience. This is not to say that it would be proper to put duds in QA, but QA is a good place to train some of our your supervisors. It gives them a chance to see the "Big Picture" as well as pick up those things that distinguish good supervisors from poor ones. They leave QA with a clear understanding of their role as supervisors and how best to play it.

Yes and no! From a maintenance standpoint. I would want my best people in our shops and work centers. From a QA/QC standpoint, I would want only the best. The most feasible answer would be to compromise and put your best people where they will do the most good. If you only have a few "good" people, then equally assign them to QA/QC and other pertinent areas.

Not necessarily. As I said earlier, it is easier to be critical than correct, and the QA inspector works in a much less frenzied environment. Good technical talent possessed by a mature individual who can exercise good judgment is necessary. It is often possible to use a junior person in QA when teamed with a more experienced NCO. The talent, by all means, must be adequate. It need not be the best you have.

Best talent assigned to QA? No, not in all positions and should not be. Best technical experts should be in QA where possible, however, QA has with the exception of the OIC, NCOIC and Chief Inspector, only minimal supervisory responsibilities. Using an outstanding manager in QA would not be productive as he/she would not supervise anyone. In cases where the best manager is also the best technician, the second best technician (even if a poor manager/supervisor) would be better in QA.

Yes.

Yes, QA should have the best people, The reasoning for this is simple. QA inspectors/evaluators can be as much or more help to a squadron commander or supervision than if they were assigned to the squadron. People resent being inspected by people less qualified than they are themselves. A viable QA program cannot exist without the best qualified people to execute it.

Ideally yes. In some cases particularly in specialist AFSCs, this is not always possible. Shortages in mid level managers/supervisors in various shops requires individual selection on my part to insure both inspection and production can meet mission.

Generally yes. Shop chiefs and job control also are factored in on placing people.

Yes, QA inspectors should be totally credible.

No. Need experts in work area where training and work is done. Have average to above average technicians in QA.

Yes. To evaluate any section/shop or individual, only the best should be telling the rest how they are performing. However, where only one such individual is available, the trade-off between shop chief and evaluator must be considered.

Yes. They set the example and the pace for the maintenance organization. They are visible and must be leaders, teachers, experts as well as evaluators.

No. Can't afford to take all the talent off the line and out of the shop and fly 20,000 hours plus per year.

Yes. This is a problem to manage, but when poor talent is assigned to QC, it creates multiple problems with credibility. We are just wasting management time if QC is handled by incompetent people, i.e., "square filling".

I believe that only highly qualified individuals should be assigned to QC. Without quality inspections and evaluations a true picture of the overall MSEP program is not obtained.

No, because of the limited amount of talent involved. We must leave some highly talented people to take care of business. QC must, however, have very well-qualified people.

We cannot accept all of the talent in QA and away from production. The young are trained, but all are competent with strong supervision.

Yes.

Yes, but they should not homestead there. The unit is best served if they rotate in and out every two years or so.

Yes. One good technician can solve problems for all like technicians. In an AMU, a technician has no vehicle/means for passing lessons learned to other sections, shifts, squadrons.

Definitely. if you don't have the best people, you will get an inferior product.

Not necessarily the top 5%, but certainly from the top 33%. You need good people in the shops and on the line, so the absolute best can't all be in QA. They should be good, but can be effective if not from the top 5%.

Some of the best talent. Some goes to training management, some to the production units.

Yes, QA is the quality force and must be the best. You cannot have an effective Quality Assurance Program without highly experienced, dedicated personnel.

Not in all cases: however, it should be the exception to not have the best talent in QC. Recognizing the rank structure and experience level factors discussed above, among the working level technicians, the quality function is not well served by not having talented, able, aggressive specialists as evaluators.

I believe QA should be manned with personnel who are energetic, willing to assume responsibilities beyond their AFSC parameters, good solid performers, etc. However, I do not believe it is good management to draw off the cream of any functional area to man QA, if it means only poor or ineffective managers are left.

Yes, by definition in AFR 66-1.

Yes. Sets the tone and standard for aircraft maintenance, and provides DCM with a better understanding of what's going on.

We must balance best talent with production units.

No. It should be the #2 or #3 guy in the shop. The #1 person should be the shop chief.

Yes. You've got to know what your looking for before you can find it. Also the QA program has to have credibility or its not worth having--can even damage the maintenance operation.

Depends on how well off you are.

We operate under COMO. The very best need to be in the front lines, not on the bench. QA runs a close second. However, a good QA guy may not be the best supervisor.

Yes.

Yes. Every superstar can't be, but some top people have to be there to provide leadership.

We have the right people for the job. It is necessary to maintain a balance between line and staff expertise, and concentrate on the overall mission. There is no magic in being a QA inspector, only the desire to do your best for the wing that you are capable of doing. Given the right direction and guidance, most maintenance people with the above quality can become capable "QA inspectors".

Question Number Two

What training, if any, do your inspectors receive when they are assigned to QC/QA?

QA training program consists of a local training program which tells individual of QA mission, has a reading requirement of inspector guidelines and procedures, and an open book test on policy and procedures. Expanded specific technical and cross utilization training is provided where necessary. All training is documented. Training outlines are available.

Highly qualified is the basis of their selection for QC duty. Training consists of being trained in the proper evaluation techniques, and in many cases cross-familiarization training in other than their own AFSC. One area in particular, is the structural repair inspector, who also evaluates machine shop, welding, corrosion, and survival equipment.

Each QC inspector when assigned must complete a 63 question open book test on AFR 66-1 and SACR 66-1, Vol II, corrected to 100%. Specific volume references must be provided for each answer. Each trainee is assigned to accompany the individual he or she will replace for a minimum of 30 days to observe evaluation techniques and get a basic feel for the scope of inspections. Prior to performing unsupervised evaluations, the trainee also receives a minimum of two (one personnel and one technical) over-the-shoulder evaluations administered by the quality control senior inspector.

Inspectors already have technical training and experience in their career field when they are assigned to QA. Their experience must be extensive in at least one of the weapons system or type aircraft supported by the maintenance complex. Additional systems training via FTD courses may be necessary to complete augmentee capability. All inspectors attend J3AZR00066-000 Quality Control Course and ATC 0066-000/4OMF0066-005, ATC Maintenance Management Course. An effort is made to get special FTD courses such as flight control rigging and egress for most APG (431X1) inspectors. Each inspector is also expected to complete a CPR course during his assignment.

QA personnel receive the FTD taught Quality Control Course, J3ARZ00066-000, plus a variety of other technical courses. These technical courses are selected based on how we intend to utilize the inspector. The range from Aircraft Weight and Balance, F-15 Canopy Rigging, through the Cross-Utilization Courses (CUT) used to qualify specialists on APG tasks.

Inspectors, like any other untrained, unqualified person, must be trained in any and all areas that he may inspect, plus any other area that he may be required to have a general understanding. This training applies to all inspectors, whether QA or QC, in any area and is documented on appropriate training records.

All newly assigned inspectors are given training following guidelines established in our initial evaluation and training guide. They receive both formal and informal training.

Local orientation/evaluation by OIC/NCOIC on duties/responsibilities (15-30 day OJT), then three over the shoulder evaluations of the new QA inspector performing inspections. FTD class on QA responsibilities, programs and principles, and weight and balance classes by ATC are required for all 431X1 personnel as a minimum.

In addition to the normal indoctrination training, inspection/evaluation techniques, reports, technical data, etc., all inspectors receive training in specialized areas such as weight and balance, flight test, corrosion control, fuel cell, NDI and fabrication. Inspectors also work "hands on" in all areas of QA.

Local only, on the regulation and inspection techniques. The ATC course is not command specific and therefore useless to SAC.

Some inspectors who inspect outside of their area of expertise receive some technical training. The remainder of the training is OJT with their counterparts.

Formal FTD in respective AFSC. In house training program from four to six months.

Training is given first by the individual he/she is replacing, primarily on the areas of responsibility he/she is about to undertake. The next training is given by quality control coworkers on how to finalize reports. Two EE's (evaluator evaluation) are given to the new inspector to verify his/her proficiency. Training in the math required to grade to a shop is given by his coworkers to comply with MESP.

We try to get FTD QA course for each inspector, but due to heavy turn-over, only a few have formal FTD. In house OJT is strong. We will attempt to get all our QA people through a formal FTD QA course.

In house training program.

A complete training program on how to be an evaluator.

All inspector/evaluators assigned to QC are given training on proper inspection and evaluation procedures as directed in SACR 66-6. Additionally, all inspectors are given over-the-shoulder evaluator evaluations by their respective section chiefs, and then certified by the senior inspector.

Upon assignment to QC, all receive OJT. Later, most attend a formal training course of some type (weight and balance, corrosion control, NDI, accident investigation, advanced TODO, etc.)

They are trained and evaluated in their areas of expertise and in associated CUT areas. They also receive training in the "how to" of inspections and philosophy of the inspector.

OJT by other inspectors.

On the job training.

Thirty days of OJT with the people they are replacing. We are trying to send more people to the SAC QA school.

We use an OJT program in the division. Takes 4-6 weeks to learn the administration, do(s) and don't(s), get some over-the-shoulder, then on their own.

Inspectors are trained in all aspects pertaining to their individual AFSC. In addition, each inspector is scheduled for Quality Assurance School, and Corrosion School. All APG (431X1) personnel attend manual Flight Control School, Integrated Flight Control School and egress training. All 431X1's and 256X2 (Engine) personnel must maintain currency in special certification tasks (engine run, hot pit refuel, etc.).

That depends a little bit on the person selected. In all cases, they are trained on 66-6, SAC implementation of the Maintenance Standardization and Evaluation Program, and on panel inspections, starter cartridge, and breech cap inspections. The last element in training for a new evaluator is to accomplish two evaluator evaluations, in other words, over the shoulder evaluations observed by a qualified QC evaluator.

When new personnel are assigned to QA, they are assigned to and experienced inspector for approximately 30 days. During the period they are given specific reading assignments that include the QA chapter of ATCR 66-1, all maintenance operating instructions, AFOSH Standards and QA Activity Inspection Reports. The will accompany the inspector on technical inspections, as well as personnel evaluations. After a period of OJT, "initial evaluation" will be performed.

Attend a formal training program including an ATC conducted course.

Three months on-the-job-training.

On-the-job-training.

My opinion-it's OJT.

Local training using a locally produced manual.

All rigging courses, egress qualification.

Sorry to say I don't have any initial training. They do eventually get the FTD course.

Each inspector assigned to quality control is in training from 60 to 90 days before he is qualified to inspect/evaluate. He receives training in quality control functions, MSEP reports, personnel evaluations, equipment inspections, activity inspections, and is given training on each piece of equipment or task that he will be required to inspect or evaluate.

We try to overlap the old an new inspectors at least two weeks to allow the old inspector to familiarize the individual with inspector duties and responsibilities, plus any additional duties he may have. The new inspector is assigned a trainer who walks him through the various types of evaluation/inspections several times. When the trainer feels he is ready, evaluator proficiency evaluations are conducted by a QA supervisor to insure he is ready to proceed on his own. Follow-on training is then provided to prepare him for cross-utilization in areas of expertise other than his own. This includes working with other inspectors, plus attending FTD courses as required. Additionally, off-base ATC courses are used where appropriate.

Over-the-shoulder interview (not training, but a requisite for the job).

Flight control, canopy rigging, egress maintenance, and the QC course. Also full qualification on at least one weapons system.

Most are selected internally, and therefore, are familiar with the A-10. When they are assigned to QA, they learn how we do it here. This effort insures that we have some consistency in our documentation and inspection procedures. Depending on assigned duties, they receive various certification training (i.e., weight and balance, flight control, etc.).

Question Number Three

Have any of your inspectors attended the J3AZR00066 000 Quality Control Course (aircraft) taught at Sheppard AFB? Do you feel there is a need for the course? Are there any changes you would recommend for the course?

About 20%. 50% of material felt to be worthwhile. Not oriented to TAF operation i.e., MCR 66-5.

Not in recent history, thus I assume there is no severe need for the course.

It's no good to SAC.

One of our inspectors attended the course in 1978 and feels the course was very worthwhile. I believe the course would provide more well rounded inspectors. However, I am not familiar enough with the current course structure to provide an evaluation.

Six inspectors attended. Yes, there should be a separate course for each command. It does an inspector no good to be taught the Quality Assurance Program, when he is operating under the Maintenance Standardization and Evaluation Program.

Yes, four of twenty inspectors (20%) have been to the QA course. Changes to the course are needed. QA member comments on the course are as follows: A. Course needs to be taught by the regulation that the individual will be under. all are taught AFR 66-1; many are under AFR 66-5. The course needs to cover both concepts. B. A new plan of instruction (POI) should be developed that eliminates the need for the instructor to read to those in class, and the class follow along like third graders. C. For what is covered in the course, it could be completed in five days rather than ten. The course needs more hypothetical occurrences for the in-depth explanation and clearer office requirements for new personnel in the quality assurance arena. In the ten days allocated, the course could be more than twice as effective, as it is currently.

I believe the J3AZR00066-000, Quality Control Course taught at Sheppard AFB is adequate for a general Air Force QA concept only. When considering the different styles of evaluation imposed by each MAJCOM, it is not practical to expect one course to teach it all. The Sheppard QA/QC course is not all inclusive and teaches a standard or basic QA/QC concept, but does not advocate any one command's system, concept, procedure, or philosophy. Consequently, graduates may not have a course which teaches them how their command views the QA/QC business. This is normally achieved through self education in ATCR 66-1, Volume II, Chapter 3, especially if the new inspector has never been assigned to QA before. I have eleven inspectors in my QA division in this category now. Standardization of inspectors is a real challenge to the QA Chief Inspector. Perhaps ATC and other commands could provide a course to prepare their inspectors on command unique QA concepts.

Not sure. I wasn't aware of the course, but will check on it.

Yes. I don't have strong feeling either way.

No inspectors have attended the Quality Control Course taught at Sheppard AFB. The SAC Maintenance Standardization and Evaluation Program is directed by SACR 66-1, Volume II, rather than AFR 66-1. There is a need for such a course, but it should be administered by the individual commands, and tailored to their requirements.

Yes. The inspectors rate the course very high. The only complaint is that it is slanted more toward the old AFR 66-1 organizational structure rather than POMO.

All of our inspectors have attended course J3AZR00066-000. There is a need for the course for newly assigned QA/QC inspectors with less than one year QA/QC experience. The course gives basic information about QC/QA in general and what is required by AFR 66-1. The only changes I would recommend for the course are already being implemented in a new course re-write. They are command applicable data, and a course designed for each major command.

We have 61% of our personnel who have attended QA course 4AST00066 045. These were FTD course taught here by Sheppard TDY personnel. There is a need for the course, and recommend that FTD be given the course, so it can be taught when new personnel are assigned. Recommend also that any special TAC guidance be covered at that time and the course be less general. If we do it this way in TAC, then the way to teach it is that way.

Yes, some inspectors have attended the course at Sheppard AFB. I do not believe the course, as taught, offers anything to personnel other than conversing with personnel from other units. The course required reaccomplishment with special emphasis on activity inspections and deficiency analysis. Also, inspection techniques should be stressed. Until the course is changed it is a waste of money and time.

One third of our inspectors have attended the QA/QC course (9 of 27). Ideally, I would like all inspectors to attend as it aids in fine tuning their inspection techniques. I do not have any recommended changes to the course as of now.

Approximately 75% of our inspectors have attended the J3AR00066 000 Quality Control Course. Instead of spending a great deal of our limited TDY funds by sending our men to Sheppard AFB, we arranged, through our training section, to have one of the Sheppard ATC instructors come here to McChord for the class. Thus, we saved many TDY dollars and still received the valuable training. Our inspectors felt there definitely was a need for the course and were satisfied with the course curriculum.

Yes. Unfortunately we had only one person attend this course while stationed in CONUS. In his opinion, this course teaches the basic Q.C. requirement and would be useful to personnel newly assigned to Q.C.

Yes, approximately one third still presently assigned have attended. Course is useful and needs to be changed to align with new TAC/PACAF/USAFE Regulation 66-5.

We have asked for slots; seems that the course is being changed.

An instructor was sent to us from Sheppard. Yes, a good course. No suggested changes.

Most have attended. Goal is to send all. No changes.

To date only two have attended and three more are scheduled. The course is needed, it gets the people away from the operational pressures and gives the opportunity to focus on the philosophies and methodology. Not enough experience yet to judge the need for change.

We have sent two evaluators to a TDY training team presented course at a nearly base. Those attending did not feel the course content made it worthwhile to send anyone else, and we haven't. Yes, I feel there is a need for the course, at least from a MAJCOM standpoint, so that we standardize the stand/eval process within the command. I would suggest adding block to the quality control course that would address the MAJCOM MSET program. In our case it would be a SAC MSET block of instruction. This would be for the same reason, to establish a standardized baseline for training quality control inspectors and implementing the maintenance standardization and evaluation program.

No. USAFE has a Quality Assurance Course (4AMF 00066-021) within the command that is sufficient to meet the needs.

No. I would like to send at least one person from each squadron, but with present funding, there is no way this is possible.

None. Don't know much about it. Might be good to have one graduate.

None can get slots!

Eighty percent of our current instructors have attended J3AZR00066 000. This is accomplished by having a TDY instructor present the course here. The course is of marginal benefit as it relates to 66-1 only, and does not include AFR 66-5. This should change with the new AFR 66-1.

No, however, we have requested allocations for this course. We hope it will be useful for our people.

Currently approximately 30% of our evaluators have attended the Quality Control Course. In the past, all inspector/evaluators were scheduled upon assignment to QC, but due to the revision of AFR 66-1 new classes are not yet available. The changes I would recommend would be to send SAC inspectors to a class teaching SACR 66-6 and the SAC supplements to AFR 66-1 because very little of what is taught in the old AFR 6-1 course applies to SAC without supplements.

We have one inspector that has attended the course at Sheppard AFB. Twelve of our inspectors completed the course via mobile training here at Pope AFB. Both courses provide a valuable or orientation to quality control and no changes are warranted.

No. Yes. Not familiar with the course.

No. Don't know. Probably. There is currently an FTD QA Fam Course in USAFE. We are trying to get it for all our inspectors.

Yes. Three have completed the course. Yes. Any exposure to other avenues of quality control programs broaden his/her experience as an inspector in maintenance. I know of no changes to suggest.

Yes, several have attended this course. But the value is limited because they only teach AFR 66-1, and do not get into SACR 66-6, which covers the SAC MSEP. I personally do not think that is worth the time to send our inspectors TDY for what they will again.

No.

Sixteen have completed, or are awaiting a slot, out of 21 total inspectors. More concentration is needed on techniques of inspection, attitude, and methodology.

I do not know? I doubt if they have.

Question Number Four

What do you desire or see the role of QC/QA, and more specifically the QC/QA inspector, to be in your organization?

-To be "the expert," in his/her area of responsibility.
-To be an inspector, evaluator, advisor, and most importantly an effective on scene instructor/helper! The QA person must be able to deal with people and the situation at hand.
-To be the eyes and ears as well as the technical voice of the DCM.

The expert on all problems or at least have the knowledge on how to get the answer. Friend of the maintenance man. Someone to turn to for help, technical data errors, MDRs, etc. Secondary, black hat inspector.

My QC/QA inspectors should be from the top three qualification wise. They should prevent folks from making the same mistakes in the MA Complex. They should also make corrections i.e., instruct individuals that they find deficient.

-He's the one I trust to insure our maintenance standards are high.
-He enforces procedures (by the T.O.) versus local "techniques"
-He identifies my problem areas and trends, if my own shops can't spot them.

The auditor, an impartial evaluator capable of determining the quality of a product and keeping the boss informed. They close the loop and keep production elements accountable.

Voice of integrity and "by the book" even present above the din and madness of meeting operational requirements. Technical expert; thorough investigation of problems; trainer, when appropriate.

Essential to maintaining/improving maintenance standards.

A. Employ expertise in every decision at wing level.
B. Both an inspection and training function.
C. Anticipates problems.
D. Provides impact to maintenance effort from changes to regulations and T.O.'s.
E. Can provide to DCM all points of view from all levels within organization, in an impartial manner.

I believe the role of QA personnel should be many faceted, i.e., evaluator, instructor/trainer, technical advisor, motivator and promoter of professional attributes such as integrity, self-discipline, self-improvement, task completeness, etc. The QA inspector should not be viewed as a know all, see all, do no wrong type. However, he should set personal goals for his own performance that will identify him from the rest of the work force as having that something extra.

I would characterized the role of QC as paralleling that of an idler wheel in a fan belt circuit. That is, the idler wheel (or quality function), when adjusted just right, keeps the fan belt and accessories it drives operating at peak efficiency. The QC evaluators in my maintenance complex serve as evaluators for both task proficiency and training effectiveness and as trainers themselves. By doing that, I feel they provide me a useable assessment of how well we are filling our AFR 66-1 charter.

The role of quality assurance should be one of being the "eyes and ears" of the DCM. QA must keep the DCM abreast of trends that might affect the overall maintenance mission. The secondary role of QA is a library of technical knowledge that is available for maintenance to use in complex situations.

To be the eyes and ears of production unit maintenance supervisors, staff division chiefs, and the DCM to determine if our people are properly trained and supervised.

I think the role of a QA inspector should be oriented more toward an evaluation/trainer role. He/she can/should evaluate performance, but they should convert to the role of a trainer when they come across the person/situation that obviously demands some additional training.

The best of the maintenance complex and the voice of authority.

a. A deterrent for improper maintenance actions.
b. To detect acceptable and common maintenance procedures/actions.
c. To conduct investigations for me from a non-biased view.
d. Provide an additional set of eyes for some critical maintenance actions-100 per cent QA look.
e. To teach.

To enforce quality maintenance of aircraft and equipment. To assist the DCM in ensuring that the organization supports the production effort.

The inspector should be the most highly qualified technical expert in his particular area. Any level short of this jeopardizes his effectiveness and credibility.

The inspector should function to provide a vehicle for assessment of the quality of maintenance performed and the quality of individual training. He is the eyes and ears of the MA in identifying soft areas for command emphasis.

The role of the inspector is to insure quality. The inspector insures that the job is done safely and correctly.

The role of QC and the QC inspector is to assure quality maintenance and identify personnel that require additional training to come up to MSEP standards.

QC should be the "eyes and ears" of the DCM. Spot trends in advance of a problem. Be ahead of management actions and solutions. Also inspectors are needed to keep people paying attention to correct procedures. Tough stance, etc.

I desire the QA inspector to be the technical expert on the weapon system/equipment who enforces our standards and provides on the spot corrections and training.

QA should provide feedback. QA should be my 20/20 vision in all the maintenance areas. The inspectors should be highly motivated and technically capable to evaluate maintenance and report exactly the way it is.

The quality control inspector/evaluator(s) role in my organization is an impartial fact finder, observing a large enough sample of all maintenance performed to determine if quality in workmanship is being done. He/she reports back to me any substandard areas that require closer scrutiny by supervisors.

The role of QC in the maintenance activity is to be the primary technical advisory agency in the resolution of quality problems, and to evaluate the proficiency of maintenance personnel up to and including the quality of assigned equipment.

Technical experts for MA. Provides T.O. guidance, does T.O. research, evaluates training, verifies TCTO's manages self-inspection program.

I desire QA to be my eyes and ears to assure quality maintenance is done in a safe environment, while maintaining rapport with all of the production people.

QC is vital to safe flying program. In SAC, QC is also a key player in maintenance training. The QC evaluator is the best in his field. I also rely on them to do 180 day activity inspections and as investigators to flying deviations. They are also the OPR for MDR's. In short, they are absolutely essential.

The QC function in this maintenance complex functions in two capacities. First in its primary role as wing inspectors. To compliment this responsibility is the need to function in the assistance mode. I expect our QC inspectors to share their experience with our young airmen whenever possible.

I want my inspectors to continue to keep me informed of both the strong and weak areas of my unit. The findings of both the MAC MSEP Team and the MAC Management Effectiveness Inspection Team have mirrored the findings of my QA inspectors. This tells me that our QA inspectors are indeed giving me the true picture of my unit, not just telling me what I want to hear.

QC/QA personnel should be among the sharpest, highly qualified in the organization (too often his is not the case). Their role is to ensure maintenance standards of equipment, personnel proficiency, technical procedures, etc. are adhered to in accordance with established directives. This should not only involve inspections and evaluations, but also on-the-spot training and instruction to prevent future deficiencies and problems.

Role of QC/QA two fold function:

a. Inspectors-technical and management oriented to provide feedback on quality of maintenance and more importantly the adherence to the many TAC standard/programs such as integrated combat turns, dedicated crew chief program, mid-shift maintenance, etc.

b. Technical advisors-by using experienced specialist and APG (AFSC 431X1) to research problems/deficiencies, QA can provide impartial opinions/recommendations. QA/QC being removed from the production pressures of the AUM/shop environment are more inclined to provide quality fixes to problems.

a. The role of quality control/quality assurance is to act as the conscience of the maintenance complex, to insure the strictest interpretation is made of each directive and to insure that all maintenance activities are in compliance.

b. QA inspectors should also be trainers. In today's Air Force, where we have so very many young airmen, an experienced eye can be very helpful to show what was found to be in error, and to explain the reason for it. To teach corrective and preventive measures is an inherent responsibility of quality assurance inspectors.

QA provides three Functions:

a. An evaluative agency, responsible for informing and administrative health of the maintenance complex. This is accomplished through daily evaluators and scheduled activity inspections.

b. A standardization/training agency to verify good maintenance practices and to eliminates poor or questionable practices. This is accomplished through observation and on-the-spot instruction as appropriate.

c. A repository of technical experience and expertise. The evaluators are available to assist in resolving complex technical problems, perform maintenance, or advise on preferred maintenance practices.

Aircraft maintenance for the 80 FTW as Sheppard AFB, Texas, is contracted. The basic role of the Quality Assurance Evaluator (QAE) in any contract is to assure that the contractor delivers a satisfactory and product. In aircraft maintenance, that role is significantly greater and has expanded more in the last few years. Since the aircraft maintenance contractor is required to comply with thousands of Air Force regulations, manuals, and technical orders, each of my QAEs must have an in-depth job knowledge of the publications pertinent to his area. Also I have only five inspectors to cover the entire maintenance complex; each has a larger area, and more AFSCs to cover than a traditional Air Force QC inspector.

I believe QA should perform three key roles:

a. Be a technical, procedural, and managerial resources;

b. Be a trainer and coach to the young maintenance technicians and supervisors; and

c. Be the standard setter, via inspections, for the quality of equipment, aircraft, and work performed.

I would like to see QA/QC return to the organizations who actually do the maintenance. AFR 66-1 says QA/QC is "everyone's" responsibility. I would like to believe that the troops most interested in assuring quality would be those troops actually accomplishing the maintenance. The present concept for assuring quality localizes the responsibility to those few who are actually conducting QA evaluations. This detracts from the principle that quality maintenance begins with the technician performing the tasks-not with the inspector who evaluates the task after completion. All the inspector does is check for quality. He has a long way to go before he can actually assure quality.

By regulation, obviously inspection and evaluation. In addition, they are trainers and helpers--an education function.

My primary "eyes and ears" for measuring extent of training and/or training problems as reflected in quality of production.

The QA function/inspector is the eyes and ears for any DCM. Their mission is to insure quality procedures, maintenance and equipment are utilized and available. Additionally, they are responsible for a multitude of directed AF/Command programs that insure safety and quality through the use of indirect controls. This role must be understood by all organization members.

Question Number Five

What other duties, if any, do you, or would you have inspectors do?

There duties are unlimited. They are professionals in the aircraft maintenance business and should be and are used in all areas for authoritative reference. On the other hand, I firmly believe in holding extra duty details to an absolute minimum.

The inspector should have no other duties, especially additional duties. His job should be one of prestige and cut and dry, i.e., report on the quality of the production effort.

None.

My inspectors assist in assuring emergency type one-time safety checks are made. All other efforts are dedicated toward quality assurance.

Investigate flying deviations.

Inspectors are not exempted from any additional duties or details. They are used to augment the safety function during exercise/contingency operations, and when the workload dictates, they augment the workforces as needed. Additionally, they may be assigned to work special projects such as test programs of research efforts.

Evaluate exercises, train, evaluate new programs, participate on the battle staff, and be active in mobility.

Monitor, suspenses and flies and answers to all inspection and exercise reports. Manages the FOD program. Others include: Exercise Evaluation Team members, Drug Abuse Investigation for Mobility, Disaster Preparedness OIC/NCO, Environmental Protection Committee, AFOSH monitor, housing inspectors, Suggestion Program monitor, Policy letter monitor, Unit Security Manager, and war skills augmentee (WRM tank and munitions buildup).

My inspectors do not other duties than those prescribed in ATCR 66-1. I can think of no other duties that I would have them perform.

FOD program, dropped object, special avionics programs (TFR and RHAW).

None.

None, other than assigned additional duties such as T.O. monitor, safety monitor, F.W. and A. monitor, and so on.

They are the OPR and ORIs, MEI, SAVs, and self-inspection responses. They verify and consolidate the corrective actions for the Deputy Commander for Maintenance (DCM) Complex. They also serve as Exercise Evaluation Team members for local exercises.

Other duties: The quality control personnel perform the function of generation monitors and safety observers during generation activities. The administer the Maintenance Self-Inspection Program and IG crossfeed programs. They are used frequently as research specialists for the wing due to their broad experience and access to technical publications. This research is not limited to maintenance related activities.

My inspectors perform weight and balance of aircraft, functional check flights, service tests, MDR program, Nuclear Safety Evaluation, etc. I also call on QA to utilize their expertise in solving repetitive problems on flight controls.

In addition to the duties discussed in this questionnaire, QA inspectors investigate all aircraft incidents which include all air aborts, fuel spills, engine shutdowns in flight, and ground incidents and accidents.

Manage the dropped objective program, the maintenance self-inspection program and exercise evaluation teams. Use QA to evaluate AMQT (aircraft maintenance qualification training) graduates and instructors. QA is used to instruct special maintenance/servicing oriented classes when a definite training deficiency is noted. Also use QA to conduct 3-6 operational readiness inspections on aircraft per month. This OR spot check determine actual serviceability of aircraft shown FMC by the AMU's.

Standard--FOD monitor.

No additional duties.

Exercise evaluators, technical troubleshooters, and literature research (TO's, regulation, other publications).

Our QC evaluators act as aircraft generation monitors during generation exercise. That ends up being a full-time duty for them during periods of generation.

Aside from the requirement imposed by MCR 66-5, I see no further duties for the inspector. QA is tasked as Wing exercise evaluators during our local exercise, due to their expertise.

Due to our inspectors' technical knowledge and contracts with agencies outside the wing, I use them to research and develop solutions to special maintenance problems. I attempt to limit other duties given to our inspectors so that most of their time can be spent in their primary function.

Our inspectors act as evaluators during local exercises, act as trainer/certifiers for hot pits, and integrate into the work force in time of war.

We have weapons people working TODO and 431's doing the TCTO/FCF programs. Additionally, during unit readiness exercises, most of my QA people are Exercise Evaluation Team (EET) members assisting CVI.

They verify TCTO compliance by spot checking completed work. Form the core of my impoundment teams on problem discrepancies identified on aircraft or equipment and accidents/incidents. They do acceptance inspections on aircraft returning from PDM. Monitor and evaluated the wing FOD/FOP programs. A portion are identified to become EET members during mobility exercises. In essence, they are my troubleshooting team, identify the problem areas, providing the facts and recommending corrective action.

All my inspectors are involved in at least two or three additional duties.

We must have inspectors man our evaluation team for local ORI/NATO TAC EVAL preparatory exercises. These run three days per quarter, and require lots of time in planning, execution, and written reports.

Our inspectors work for the CVI on practice exercises. They also frequently accompany deployments, not solely as inspectors, but as my representatives to insure proper maintenance practices are followed. I do not indorse nonfunctionally-related duties for QA personnel.

At this time, of the 16 inspector/evaluators assigned approximately half are performing additional duties. These duties include AFTO Form 22 monitors, weight and balance officials, AFTO Form 135 problems, Transient Maintenance QA, Suggestion Monitor, resource protection, and aircraft generation monitors. In addition to these duties, all inspector/evaluators are available to assist the maintenance squadrons if requested.

Only those technical in nature and directly related to maintenance: hot pit refueling, disaster preparedness, F.O.D., exercise evaluation team (EET) members. No other.

Various promotion boards. Base EET Team.

They provide many other services for our staff and the unit in general. This is acceptable only if it does not hinder the primary mission.

END

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